

(12)特許協力条約に基づいて公開された国際出願

(19)世界知的所有権機関
国際事務局



(43)国際公開日
2004年7月8日 (08.07.2004)

PCT

(10)国際公開番号
WO 2004/056936 A1

(51)国際特許分類⁷: C09K 3/00, A62D 3/00, B09C 1/08, C02F 1/70, B01J 23/745, 27/055

重県 四日市市 石原町1番地 石原産業株式会社 四日市事業所内 Mie (JP).

(21)国際出願番号: PCT/JP2003/016257

(74)代理人: 浅村皓, 外(ASAMURA,Kiyoshi et al.); 〒100-0004 東京都千代田区大手町2丁目2番1号 新大手町ビル331 Tokyo (JP).

(22)国際出願日: 2003年12月18日 (18.12.2003)

(81)指定国(国内): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25)国際出願の言語: 日本語

(84)指定国(広域): ARIPO 特許 (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), ヨーラシア特許 (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ヨーロッパ特許 (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI 特許 (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26)国際公開の言語: 日本語

添付公開書類:
— 国際調査報告書

(30)優先権データ:
特願2002-370564 2002年12月20日 (20.12.2002) JP

特願2002-379598 2002年12月27日 (27.12.2002) JP

2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイドスノート」を参照。

(71)出願人(米国を除く全ての指定国について): 石原産業株式会社 (ISHIHARA SANGYO KAISHA, LTD.) [JP/JP]; 〒550-0002 大阪府大阪市西区江戸堀1丁目3番15号 Osaka (JP).

(72)発明者; および

(75)発明者/出願人(米国についてのみ): 佐々木謙一 (SASAKI,Ken-ichi) [JP/JP]; 〒510-0842 三重県四日市市石原町1番地 石原産業株式会社 四日市事業所内 Mie (JP). 桜井薰 (SAKURAI,Kaoru) [JP/JP]; 〒510-0842 三

WO 2004/056936 A1

(54) Title: MATERIAL FOR TREATING HARMFUL SUBSTANCE AND METHOD FOR TREATING HARMFUL SUBSTANCE USING THE SAME

(54)発明の名称: 有害物質処理材及びそれを用いた有害物質処理方法

(57) Abstract: A material for use in treating a harmful substance, characterized in that it comprises a metal oxide and a reducing substance. The material can be used for treating an environmental pollutant such as a harmful organic compound or a nitrate or nitrite nitrogen-containing compound at a lower cost with good efficiency.

(57)要約: 本発明は金属酸化物と還元性物質を含むことを特徴とする有害物質処理材に関し、有害な有機化合物や硝酸態及び亜硝酸態窒素含有化合物等の環境汚染物質を、低成本で効率良く処理できる。

(TRANSLATION)

PATENT COOPERATION TREATY
PCT
INTERNATIONAL SEARCH REPORT
(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference W1366-00	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA220) as well as, what applicable, item 5 below.
International application No. PCT/JP2003/16257	International Filing date (day/month/year) 18.12.2003	(Earliest) Priority Date (day/month/year) 20.12.2002
Applicant: ISHIHARA SANGYO KAISHA, LTD.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report
 - a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
 - b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:
 contained in the international application in written form.
 filed together with the international application in computer readable form.
 furnished subsequently to this Authority in written form.
 furnished subsequently to this Authority in computer readable form.
 the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.
2. Certain claims were found unsearchable (See Box I).
3. Unity of invention is lacking (See Box II).
4. With regard to the title,
 the text is approved as submitted by the applicant.
 the text has been established by this Authority to read as follows:
5. With regard to the abstract,
 the text is approved as submitted by the applicant.
 the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. The figure of the drawings to be published with the abstract is Figure No. _____
 as suggested by the applicant.
 because the applicant failed to suggest a figure.
 because this figure better characterizes the invention.

None of the figures.

INTERNATIONAL SEARCH REPORT

International application No. PCT/JP03/16257

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl' C09K3/00, A62D3/00, B09C1/08, C02F1/70, B01J23/745,
B01J27/55

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl' C09K3/00, A62D3/00, B09C1/08, C02F1/70, B01J21/06-21/08,
B01J23/745, B01J27/55

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2002-317202 A (Kawasaki Steel Corp.), 31 October, 2002 (31.10.02), Claims 1, 4, 12; Par. Nos. [0026], [0041], [0047], [0066], [0067], [0070], [0076], [0084] to [0086] & US 2003/116745 A1	1-13,15, 18-21 14
A	JP 2000-334477 A (Chiyoda Corp.), 05 December, 2000 (05.12.00), Claims 1 to 3; Par. Nos. [0007], [0011] (Family: none)	1,9-11,16, 17,21 14
X		
A		

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
16 February, 2004 (16.02.04)

Date of mailing of the international search report
02 March, 2004 (02.03.04)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Faxsimile No.

Telephone No.